

DOCKET FILE COPY ORIGINAL

Before the  
FEDERAL COMMUNICATIONS COMMISSION  
Washington, DC 20554

In the Matter of )  
)  
Complaint of Discrimination ) Disabilities Issues Task Force  
on the Basis of Handicap ) RECEIVED  
Filed by the Cellular Phone )  
Taskforce on Feb. 2, 1997 )  
)  
Guidelines for Evaluating ) ET Docket No. 93-62  
the Environmental Effects of ) FCC MAIL ROOM  
Radiofrequency Radiation )

JAN 20 1998

COMMENTS

In support of the Appeal of the Cellular Phone Taskforce's Discrimination Complaint referenced above, Testimony of Marija Hughes before the National Capital Planning Commission of May 27, 1997 and November 6, 1997, and her letter to its Chairman of March 5, 1997 are attached. Ms. Hughes is electrically sensitive, a member of the Cellular Phone Taskforce, and an employee of the Occupational Safety and Health Administration (OSHA). She has been testifying about antennas and radiofrequency radiation in the Washington, D.C. area since 1994.

Respectfully submitted,

*Arthur Firstenberg*

Date: Jan. 19, 1998  
Original + 4 copies

Arthur Firstenberg, President  
Cellular Phone Taskforce  
Post Office Box 100404  
Vanderveer Station  
Brooklyn, New York 11210  
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I hereby certify that a copy of these Comments were mailed by Federal Express this 19th day of January, 1998 to Dr. Robert Cleveland, Jr., Federal Communications Commission, 2000 M Street, N.W., Room 266, Washington, DC 20554.

No. of Copies rec'd 044  
List A B C D E

*Arthur Firstenberg*  
Arthur Firstenberg

2400 Virginia Avenue, NW, C501  
Washington, DC 20037  
March 5, 1997

Harvey Gantt, Chairman  
National Capital Planning Commission  
801 Pennsylvania Avenue, NW  
Washington, DC

Dear Chairman Gantt:

On the basis of the letter I received from the President of the AFGE, Local 32, indicating that there is a "high employee death, due to cancer." I am asking the NCPC to request FCC, EPA, Region III, Center for Disease Control and any other appropriate federal agency in the National Capital Region to make an immediate health study of the effects of electromagnetic fields from the transmitting towers on federal employees at the various employment sites in the National Capital Region. Because, there are already 1,000 transmitting antennas on the private property, 180 transmitting antennas on the federal lands and 180 antennas on the foreign embassies in the National Capital Region. Therefore, the study should include:

- cancer rates, particular by brain cancer rates and leukemia rates
  - a) as a result of large number of microwave transmitting towers between federal sites
  - b) cellular telephone antennas

The study should also include the death rate from electromagnetic exposures.

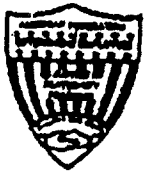
This study should examine the cancer rate among federal employees with that of the rest of the civilian population. If the federal employees are at a higher risk, that raises a question: if the federal workforce is gravely ill, can the illness be linked to the extraordinarily high amount of transmitting antennas in the vicinity of the E Street, NW federal building and other transmitting antennas in the rest of the city, and including the proposed transmitting antenna on the new Red Cross building.

It is important that before NCPC approves additional transmitting antennas, NCPC and FCC with the assistance of unions, volunteers and federal government experts conduct a health survey of the Washington Metropolitan area to determine a high concentration of transmitting antennas. I volunteer to assist this project by providing data I have researched for the past several years on the cumulative impact of electromagnetic transmission.

Sincerely yours,



Marija Hughes



**AMERICAN FEDERATION OF GOVERNMENT EMPLOYEES**  
**LOCAL UNION No. 32**

1900 E Street, N.W., Room 2H30  
Washington, D.C. 20415-0001

Michelle R. Borden  
President

202-606-1080  
Fax: 202-606-5097

In Reply Refer To:

Your Reference:

Date:

MAR - 5 1997

Ms. Marija Hughes  
EMR Alliance  
2400 Virginia Ave., NW  
Washington, DC 20007

Dear Ms. Hughes:

Thank you for your assistance and guidance given to American Federation Government Employees Local 32, located at OPM regarding our high rate of employees death, due to cancer.

As we have stated to you we are currently researching the possibility of these deaths being related to unhealthy conditions at OPM.

Please present these concerns to the National Capital Planning Commission on the behalf of AFGE Local 32.

Thank you for your assistance in this matter.

In Solidarity,

  
Michelle R. Borden  
President, AFGE Local 32

*"An Injury To One Is An Injury To All."*  
*Affiliated with the American Federation of Labor and Congress of Industrial Organizations*

Testimony of Marija Hughes before the National Capital Planning Commission

As Representative of EMR Alliance

On Antenna Task Force Report February 27, 1997

May 27, 1997

Mr. Chairman, members of the Commission, my name is Marija Hughes and I live at 2400 Virginia Avenue, NW, Apt. C501, Washington, D.C. 20037. I am representing the EMR Alliance, an organization which consists of 450 organizations whose members are concerned with microwave/radio frequency emissions from transmitting antennas. I am also an author of Computer Health Hazards, v. 1 and 2, and Computer, Antenna, Cellular Telephone and Power Lines Health Hazards, v. 3, 1996.

Thank you for the opportunity to address the National Capital Planning Commission's (NCPC's) Antenna Task Force Report dated February 27, 1997. I wish also to thank the Antenna Task Force on its numerous hours of work to date, however, I need to point out and call the Commission's attention to several issues and shortcomings of the Report. It is commendable that the Task Force has devoted considerable time and spoken with various people and experts, but the Report still has deficiencies as follows:

- A) work is in no way completed or sufficiently conclusive to assure the public that there is no health danger from microwaves generated from transmitting antennas.
- B) the work of the Task Force should continue and should examine new studies which recently have been published, as follows:
  1. Lai, H. and N. P. Singh.  
Acute low-intensity microwave exposure increases DNA single-strand break in rat brain cells.  
Bioelectromagnetics 16:207-210, 1995.
  2. Lai, H. and N. P. Singh.  
Melatonin and a spin-trap compound block radiofrequency electromagnetic radiation-induced DNA strand breaks in rat brain cells.  
Bioelectromagnetics (in press).
  3. Lai, H. and N. P. Singh.  
Single and double strand DNA breaks in rat cells after acute exposure to radio frequency electromagnetic radiation.  
International Journal of Radiation Biology 69:513-521, Apr. 1996.

Henry Lai and Narendra P. Singh are employed by the Bioelectromagnetics Research Laboratory, Center for Bioengineering, University of Washington, Seattle, Washington.

4. Dolk, H., G. Shaddick, P. Walls, C. Grundy, B. Thakrar, I. Kleinschmidt and P. Elliot.  
Cancer incidence near radio and television transmitters in Great Britain. I Sutton Coldfield Transmitter.  
American Journal of Epidemiology 145:1-9, Jan. 1997.  
Microwave News 17:11, Jan./Feb. 1997.

Helen Dolk is employed by the Environmental Epidemiology Unit, Department of Public Health and Policy, London School of Hygiene and Tropical Medicine, London, England.

5. Repacholi, M. H., A. Basten, V. Gebiski, D. Noonan, J. Finnie and A. W. Harris.

Lymphoma in Bu-Pim1 transgenic mice exposed to pulsed 900 MHz electromagnetic fields.

Radiation Research 147:631-640, 1997.

Michael H. Repacholi is employed by the Royal Adelaide Hospital, Adelaide, Australia

Antony Basten is employed by the Centenary Institute of Cancer Medicine & Cell Biology

Val Gebiski is employed by the NHMRC Clinical Trials Center, Sydney University, Sydney Australia

Denise Noonan is employed by the Institute of Medical & Veeterinary Science

John Finnie is employed by the Central Veterinary Laboratory, Adelaide, Australia

Alan W. Harris, is employed by Walter & Eliza Hall Institute of Medical Research, Melbourne, Australia (Attachment 1-5)

- C) Studies which identify the harmful effects of radiation have not been included in the Report. As an example, when I had an opportunity to discuss the subject with the Antenna Task Force, I presented studies by Sheldon Benjamin, a neuropsychiatrist, employed by the University of Massachusetts. Those studies are not even mentioned. The slides prepared by him indicate the harmful effects from microwave radiation. Those slides were presented to the Task Force. (Attachment 6)

The harmful effects are:

1. death-large doses of microwaves can kill;
2. health effects-include cataract formation and burns
3. cancer: lawsuits settled when a worker develops cancer or neuropsychiatric effects; lymphoma/leukemia 10 times expected rate as a Boeing (a large settlement in a class action suit against the company); and
4. dementia (suit against RCA by microwave relay worker exposed to high dozes of radiation).

- D) The studies by Lai & Singh and Repacholi, et al. point out that microwave radiation disrupts the DNA (deoxyribonucleic acid) in the brain. Here I submit copies of the four studies for the Task Force. I was among the first persons to present studies made by Dr. Sheldon Benjamin, a neuropsychiatrist at the University of Massachusetts, which point out biological hazards. Although this w s not mentioned in the Task Force Report, I would like to point out that due to his studies NYNEX antenna towers were not built in Chesnut Hill, MA. Honolulu antenna towers were taken down due to public concern. Those towers showed that people living near them had more cancer deaths 1.88 times higher than expected and the towers were taken down.

Other studies that Dr. Benjamin examined are: (animal studies)

1. Prans & Suskind: exposed mice to  $100 \text{ uW/cm}^2$  (1/3 of the standard) exposed only 4.5 minutes a day for 300 days. One third got leukemia or lymphoma, and five fold increased damage to sperm and

testicular atrophy.

2. Dr. Szmigielski exposed mice to chronic low level microwaves and 23.5 got cancer, ie 10.4 got a rare adrenal tumor, compared to 1.4 of controls.

There are more than 40 epidemiological studies showing correlation between radio frequency radiation and cancer, mostly cancer of the blood and nervous system. Those studies are more conclusive than those existing for asbestos and cancer.

The microwave damage is at the cellular level. It damages chromosomes by altering DNA and creating chromosome breaks <sup>and</sup> immune system damage interference with T cell function. Malignant transformation: glioma brain tumor is five times greater; altered calcium efflux, cellular disruption and degeneration of brain neurons. The examples of human studies are:

- a. Sam Milham, Jr. MD studies of 1,700 deaths among members of the Amateur Radio Relay League they had twice the normal leukemia risk. He also examined 68,000 FCC licenced ham operators and found increased incidence of leukemia and lymphoma, twice the normal myeloid leukemia risk.
- b. The Honolulu census tracts with towers had more cancer deaths than expected. The census tracts with towers was 1.88 times higher on average.
- c. Polish military personnel exposed to microwave radiation developed cancer three times as often. Especially they got hematolymphatic cancer seven times as often. The duration of exposure correlated with cancer incidence, meaning that the risk will increase the longer they live near the tower. Cancers of any type appeared on average of 10 years earlier in exposed population.
- d. The University of Rochester FM Antenna, produced twelve cases of non-Hodgkins lymphoma at River Campus in a brief time (much higher than expected). Also, there were five cases among workers at Lattimore Hall 100 ft from antenna.
- e. McFarland, CA Voice of America Transmitter caused <sup>an</sup> increased incidence of childhood cancers, four miles from a two million watt antenna.
- f. The U.S. Embassy employees located in Moscow, were exposed to high frequency microwave radiation from 1953-1979; and they suffered from irritability, depression, poor concentration and learning disorders were more common in children raised in proximity of the sources of high frequency microwave radiation. (Attachment 7)

- E) The Report does not address adequately the cumulative effects of the many current antennas in the Washington, D.C. area. These antennas are now being coupled with the multiple antennas erected by PCS or other such private groups. Is anyone measuring their cumulative emissions?

There is a need for an independent assessment of any possible cumulative effect of these microwave antennas. The Report is rather weak on this matter.

Communities throughout the nation are trying to deal with the proliferation of antennas. There are over 290 municipalities which protested and received moratoriums on erecting additional antennas. Some other groups are taking antenna manufacturers to court, because their property had been devaluated. Organizations like the EMR Alliance and Cellular Phone Task Force are holding meetings and organizing municipalities on how to fight unrestricted proliferation of all antennas.

It appears to me that the Antenna Task Force is not adequately informed about the harmful effects of the transmitting antennas and the current status of public concern regarding the harmful effects of the transmitting antennas. In addition, the Report does not include the most recent studies of the harmful effects. Even the New England Journal of Medicine (Attachment 8) has an article indicating that cellular telephones cause disruption of pacemakers, in the May 22 issue.

1. Hayes, D. L., P. J. Wang and D. W. Reynolds, et al.  
Interference with cardiac pacemakers by cellular telephones.  
New England Journal of Medicine 336:1473-1479, May 22, 1997.

The Report does not mention the federal employees' concern of harmful effects of microwave antennas. I herewith submit signatures of federal employees in the national capital region indicating their concerns. They are asking for a hearing on antennas, and if that is not possible, a round table to express their concerns and convey to you their fears and health horror stories. (Attachment 9)

The NCPC Guidelines on Antennas should include the policy contained in the District elements of the "Comprehensive Plan for the National Capital" dealing with "prudent avoidance." This policy should be expressed in the general criteria applying to antennas in the guidelines.

I am attaching to my statement a letter from Congressman Phil English to Thomas J. Bliley, Chairman of the Committee on Commerce expressing congressional concern of the health impact of the transmitting antenna towers for your information. (Attachment 10)

Also, enclosed is a letter addressed to Senator McCain, written by the Cellular Phone Task Force expressing concern about the adverse impact of antennas. (Attachment 11)

I would be happy to met with the NCPC Antenna Pask Force staff to review the material that I provided for your information in order to facilitate that the staff understands the implications of the impact of the transmitting antennas. I will be happy to answer any questions at this time.

Marija Hughes  
2400 Virginia Avenue, NW  
Apt. C501  
Washington, DC 20037  
(202) 293-2686



Testimony of Marija Hughes before the National Capital Planning Commission

As Representative of EMF Alliance

On the Revised Guidelines and Submission Requirements for Antennas on Federal Property in the National Capital Region October 30, 1997

November 6, 1997

Mr. Chairman, members of the Commission, my name is Marija Hughes and I live at 2400 Virginia Avenue, NW, Washington, D.C. 20037. I am representing the EMF Alliance, a group which consists of 450 organizations whose members are concerned about microwave/radio frequency emissions from PCS antennas. I am also an author of Computer Health Hazards, v. 1 and 2, and Computer, Antenna, Cellular Telephone and Power Lines Health Hazards, v. 3, 1996. Most recently, I lectured on electromagnetic sensitivity at: Copenhagen, Denmark, 1995, Bologna, Italy, June 1997, New York, N.Y., October 1997, and San Diego, November 1997. Lastly, I work in a federal health and safety regulatory agency.

I am commenting on the "Revised Guidelines and Submission Requirements for Antennas on Federal Property in the National Capital Region" (NCPC File No. 2598). The federal antenna guidelines are of extreme concern to the National Capital Region. All over the United States, as well as around the world, citizens are protesting the installation of more antennas.

BACKGROUND

In 1987, Richard A. Tell and Edward D. Mantiply of the Environmental Protection Agency, presented a paper, entitled "Population Exposure to (VHF) and (UHF) Broadcast Radiation in the United States," (Attachment 1) in which they reported their measurements of radiofrequency radiation (RF) in 12 cities: Boston, Atlanta, Miami, Philadelphia, New York, Chicago, Washington, D.C., Las Vegas, San Diego, Portland, Houston and Los Angeles. Tell and Mantiply concluded that approximately one percent of the population studied, or about 380,000 people are exposed to greater than the excepted standard ( $1\mu\text{W}/\text{cm}^2$ ). Very high radiation (VHR) and ultra high radiation (UHR) broadcasts are the main source of ambient radio-frequency exposure in the United States. Cellular telephones generate 800-900 MHz frequency. PCS antennas generate 1,800 MHz, which is equal to 1.8 GHz. These are high frequencies and most dangerous since they have short wave lengths. They are easily absorbed by the body. Those antennas are too close to populations; therefore they need to be in remote, unpopulated areas. Emissions from PCS antennas effect the flight of birds. Birds have ferromagnets in their brains which enables them to migrate and navigate. RF radiation interferes with birds' flying.

We in Washington, D.C. now have over 1,000 antennas on private property, over 1,500 on Federal lands, and over 1,600 on foreign mission property in the district. Too many of these are near residential communities. Also, Federal employees in particular are feeling the effects of numerous transmitting antennas on Federal buildings. Federal employees are already over exposed. The Office of Personnel Management, the Department of Labor Office of Inspector General, the World Bank and the Census Bureau (Suitland, MD) have reported higher incidence of breast cancer among their employees in the Washington, D.C. area. In addition, the World Bank has reported increased incidence of testicular cancer in men. (Attachment 2)

Radiofrequency is not limited to Washington, D.C. Responding to opposition from Vermont citizen groups, Sen. Patrick Leahy (D-Vt.), the ranking Democrat on the Senate Judiciary Committee, and Sen. James Jeffords (R-Vt) last week introduced S. 1350, a bill to amend section 332 of the Communications Act of 1934 to preserve State and local authority to regulate the placement, construction, and modification of certain telecommunications facilities, and for other purposes. The bill will remove the antenna siting pre-emption provision from the 1996 Telecommunications Act. Senator Leahy explained: I do not want Vermont turned into a giant pincushion with 200-foot towers indiscriminately sprouting on every mountain and in every valley." The bill, which would shift the burden of proof from local and State regulators to the carriers for antenna siting proposals, repeals the Federal pre-emption of State and local regulations regarding the placement of antenna towers, and also repeals the Federal pre-emption of local and State antenna regulations based on environmental effects. The bill will also prohibit the FCC from adopting rules in the future that would pre-empt future State and local regulation of antenna siting. (Attachment 3)

Numerous people from areas where PCS antennas have already been installed reported that they are suffering from adverse effects as a result of RF emitted by PCS antennas. New York City citizens, led by Arthur Firestenberg, President of the Cellular Phone Task Force, picketed in front of New York's City Hall, protesting Bell Atlantic and Omnipoint Telecommunications Company's position to use 3,000 lampposts, traffic light poles and highway signal posts as wireless antenna locations. They collected several thousand signatures. (Attachment 4) Mr. Firestenberg will be the expert witness in a Dublin, Ireland, PCS antenna legal case. The Dublin case is the first PCS antenna case linking RF emissions and health affects.

Some New York citizens had to move out of the City due to the mounting health hazards caused from the digital cellular telephone antenna system installed in New York City. Pelda B. Leve, writes in the Hartford Courant, Feb. 1997 that she experienced facial burning and tingling, was nauseated and dizzy, had pelvic and joint pain, insomnia, headaches, eye pain, muscle pain, chest pain and rapid heartbeat. (Attachment 5)

Jenelle Tuttle of Cottonwood, Arizona, wrote in The Arizona Daily Courier, July 8, 1997 that

"you do not know what it's like for the electrosensitive person to experience body tremors, vertigo, nausea and insomnia, or the annoyance of the constant maddening "humming" sound in the vestibular cerebellum system (CVS)... inner ear/brain...caused by the frequencies now being emitted from the unsuspecting towers. Many of us on this side of Mingus Mountain are going through days and nights of absolute hell because of the increse of tower transmitters on Mangus Mountain... especially since the installation and activation during the early part of 1995, of the electromagnetic low frequency microwave tower that beams down on those of us living in the Verde Valley (Cottonwood) from Mingus Mountain, as well as those seriously being affected on the other side of the mountain in Chino Valley, Prescott Valley and Prescott. And it's never been the same since." (Attachment 6)

Lucinda Grant, President of Electrical Sensitivity Network in her letter to Margaret A. Hamburg, M.D. Commissioner Department of Health in the City of New York states that "The New York State Supreme Court Appellate Division ruled on May 6, 1982, that they were provided...with ample evidence of the existence of a disease identified as "microwave or radiowave sickness." (Attachment 7). She said that the New York Cellular Phone Task Force has filled a lawsuit against New York City, due to the installation of cellular telephones.

Dr. A. S. Mishrick, a physician and professor of surgery at three university hospitals in Long Island said "in light of the mounting evidence of serious adverse health and environmental effects from exposure to radio-frequency and microwave radiation emitted from wireless communication devices and systems, it would behoove the New York State regulatory agencies to pay serious attention to this issue before lending unconditional support to a technology that could prove to have lethal consequences. (Attachment 8)

#### COMMENTS ON NCPC GUIDELINES

The NCPC Task Force and staff have worked very hard to find real answers to the antennas problem. However, as the resolution before you indicates, more work is needed. You have done excellent job, however the eight recommendations, contained in the NCPC Resolution to adopt the Antenna Task Force recommendations, do not go far enough. Incorporating lower standards into the Guidelines would be contrary to the existing Comprehensive Plan policy of "Prudent Avoidance." The Guidelines should contain the most restrictive standards. Don't approve the placement of any additional antennas on Federal property. Don't be swayed by special interest groups.

The Federal Government has a duty to protect the health and safety of citizens, not only Federal employees but also visitors, DC employees, and workers in surrounding buildings. Nowhere in the Guidelines are there provision to a) measure the existing RF emissions, b) restrict the absolute number of PCS antennas that can be built and d) provide for the maximum number of PCS antennas. These provisions should be added to the Guidelines.

On Tuesday, November 4, 1997 I attended the funeral services for the AFGE President John Sturduvant, who died of leukemia at age 59. He worked in his office on the 11th floor, where the RF is the highest, surrounded by other Federal buildings: The Department of Labor, The Capitol, The City Post Office and US Courts. All of these Federal buildings already have a large number of transmitting antennas. Radiation is cumulative. If radiation does not cause cancer, it promotes the development of cancer. How many people will need to die, before we will take seriously the high RF radiation in the Washington, D.C. area?